DOCUMENT RESUME

ED 094 452 EA 006 297

AUTHOR	Loar, Robert L.
TITLE	"Zap -- You're Sterile"
PUB DATE	Mar 74
NOTE	14p.; Speech given before National Association of Secondary School Principals Annual Convention. (58th, Atlantic City, New Jersey, March 1-6, 1974)
EDRS PRICE	MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS	Administrator Guides; Curriculum; *Curriculum Development; *Educational Alternatives; *Educational Innovation; Educational Objectives; Educational Programs; High Schools; Open Education; Standards; *Student Participation
IDENTIFIERS	Los Alamos; *Minicourses; New Mexico

ABSTRACT

A minicourse is any educational experience that involves a detailed and indepth study of a specific unit or subject, jointly planned by student and teacher, and for which less than a semester of time is used. Minicourses at Los Alamos High School, Los Alamos, New Mexico, are a part of their total packet of educational innovations, including open campus with its varying amounts of unstructured time for students, the involvement of students in all types of activities and on committees, and a school and community work-study program. The minicourse curriculum, standing on its own merits can work alone, or it can work in conjunction with traditional or other innovative programs. (Author/WM)

ED 094452

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

NASSP Convention - 1974 - Robert L. Loar, Los Alamos High School, Los Alamos, N.M.
Atlantic City

"Zap -- You're Sterile"

Thank you, Mr. McCourt, for that introduction; and I thank you not for what you said but for that generosity which motivates you to exaggerate so beautifully.

I doubt that any of you are old enough to remember the Revolutionary War, but during that war the British House of Commons had one conspicious partisan of the American cause. He was the notorious John Wilkes whose penchant for taking what in England was the opposite view was exceeded only by his passion for the opposite sex. At one point when Wilkes openly hailed an American victory, Lord Sandwich of the King's party attacked his treasonable conduct saying, "The honorable gentleman from Middlesex will have a limited career in this chamber, for it shall either end on the gallows or by a loathsome disease," to which Wilkes replied, "The honorable lord may well be correct. It all depends on whether I embrace his programs or embrace his mistress."

Now, although I have no mistress for you to embrace, I do offer a program. It is my intent to convince you that a mini-course curriculum has something to offer almost everyone, regardless of the nature of your community, the size of your school, your type of students, size of your budget, or the type of staff which you have. In fact, there is only one school situation in which a mini-course curriculum is inappropriate. Such a curriculum is not for the administrator or faculty or community which is afraid to allow students to become involved in their own education and in their own decision-making--even when these decisions may be incorrect. Nor is it for those who fear to "open-up" the educational system and "let things happen." Such a program is, perhaps, not for the administrator who feels that he must at all times keep a totally firm hand on the tiller of his ship. For if you "open-up" the curriculum, allow students to have some control over their own destiny and teach them to think, some unusual and unexpected changes will occur. And these

EA 006 297

changes may be innovations for which you cannot prepare. Let me tell you a true story about the 1972 State Science Fair in New Mexico and about some of the Los Alamos High School student exhibitors in that fair. There were several of these student exhibitors from LAHS and they, unknown to teachers or administrators, collaborated in building a special exhibit. At this time environmental concern and the resultant awareness of need for population control was paramount. These science students were able to place the exhibit in the State Science Fair and it had already received considerable attention before even those in charge realized that it was not an authorized exhibit. The display unit was related to population control and consisted of an assortment of gadgets--buttons, switches, lights, etc.--along with specific instructions for the observer who was asked to manipulate various dials, switches, rheostats, etc. while looking into a lighted screen. While the viewer was following a set of prescribed instructions, he became completely engrossed in the closed display of lights and changing materials on the screen. So he was totally unprepared for the slight electric shock which he then suddenly received and for the population control message which flashed on the screen--"Zap, you're sterile."

This is a true story. The project won no prizes, but after the initial shock wore off, the directors of the Science Fair did see that this creative addition added some zest to the displays and it was allowed to remain. It became quite an attraction! As already indicated, my point in relating this incident to you this morning is to illustrate that if you are going to "open-up" the curriculum and teach young people to think, you had better prepare yourself because unexpected outcomes will result. These students who initiated the hoax project for the N.M. State Science Fair all had legitimate projects there--several won top prizes--, but they planned and constructed this farce in the school's laboratories and they transported and assembled it in the Science Fair without the knowledge of a teacher or administrator.

Mini-courses at LAHS are a part of the total packet of educational innovations. (You all know the definition of an innovation--a novel device of any sort by which administrators recently installed in power learn why their way of doing things also

does not work.) I would report to you, however, that we at Los Alamos High School feel that some of our innovations do work. Among these new concepts are the open campus with its varying amounts of unstructured time for students, the involvement of students in all types of activities and on committees--including curriculum committees and the hiring of students to help with summer curriculum development--, a school and community work-study program, a student tutoring program using high school students in elementary and junior high schools, model special education programs, home ec. for boys, auto mechanics for girls, the use of middle management, PPBES, and I could go on--but, the point is that we consider the mini-course curriculum to be but one part of the total package. It is, however, an important part and it could stand on its own merits and work alone or in conjunction with other innovative or traditional programs. And, I feel that mini-courses--if properly planned and executed--will work in almost any school with any kind of scheduling arrangement and in almost any community. In fact, a viable, relevant mini-course curriculum can offer the overwrought, over-worked administrator a respite. You all know that a secondary administrator is defined as one who is responsible for all the mistakes of his subordinates and superiors. Mini-courses may even cause students, teachers, and parents to become so involved that relief is offered to the harried principal who feels that he deserves to go to heaven because he has already spent his time in hell.

A working definition of mini-courses is needed as a basis for my presentation this morning. For our purposes at LAHS a mini-course is any educational experience which involves detailed and in-depth study of a specific unit or subject jointly planned by student and teacher and for which less than a semester of time is used. Perhaps this definition presents a question to some of you. Could it not also be a mini-course if it is not jointly planned by student and teacher? The answer to this query is yes in general, but no at LAHS. Time is limited this morning and does not permit a detailed analysis of the rationale for student involvement in goal setting and course planning. Suffice it to say that students who are involved

in setting goals and in the planning of their own educational experiences are much more likely to be committed to the attainment of those goals and to the completion of the planned educational experiences with greater depth and quality than are those students who are not so personally motivated.

And, I subscribe to the philosophy that in-depth student-involvement and activism in positive educational channels is the answer to many of the problems which we face in our society today. I am not suggesting militancy. I am suggesting constructive activism. Please note, also, that I am advocating student involvement in the educational process, not the diminishment of the educator's role to that of passive observer. The truth is that the role of the educator becomes much more sophisticated, a new and dynamic involvement with the student in the educational process. Both the role of the teacher and that of the student must change from the traditional definition and meaning if we are to survive the sweeping social demands of the 1960's, the 70's and beyond. Richard Nixon said, "Certainly the time when the young are to be seen and not heard has gone in America and gone for good." Whether or not you endorse Richard Nixon, I think he was correct when he made that statement. We are here this morning, however, to take a look at the positive outcomes to be derived from mini-courses for the student, the school, the community, and the teacher rather than to build a lengthy rationale for student-involvement in the planning process.

At this point it should be evident that I feel that student-involvement in the selection of mini-courses for the school and in the planning of those experiences is of critical importance to its educational success. This belief will be evident in my explanation of our experiences and of our present level of development at LAHS.

I feel that mini-courses can be adapted to and used in all secondary schools to great advantage, but I also feel that an explanation of our unique community and educational situation in Los Alamos is necessary to build a more lucid foundation for my explanations this morning.

You all know about Los Alamos -- it is a small community the other side of Texas. It is an isolated, scientific community of 16,000 people located on the

Pajarito Plateau in north central New Mexico at an elevation of 7,300 feet. It is probably best known for its role in the development of the first atomic bomb, but the adults who worked in the Manhattan Project and who still reside there and the younger generation are sensitive to the fact that Los Alamos' role in the development of peaceful uses for atomic energy has not yet received equal recognition. It appears at this time that Los Alamos will play a greatly expanding role in the search for solutions to the current energy problems in such areas as atomic fission, geothermics, and solar research and application. And, Project Sherwood which is centered in the Los Alamos Scientific Laboratory and which is developing a process for the containment of the hydrogen fusion reaction within a "magnetic bottle" may hold the ultimate answer to the world's cry for a plentiful and cheap energy source. It is possible that this process will be usable before the end of this century. There are no secrets in Project Sherwood; in fact, we share openly and freely with the Russians and Chinese in this research.

In Los Alamos there are more than 2,000 advanced degrees, 650 of which are Ph.D.'s, represented among the total population of 16,000 men, women and children. Obviously it is a community which exerts a high level of demand on its public school system. Seventy-five percent of the graduates of Los Alamos High School, where the drop-out rate is less than 1%, enter college. More than 50% of the total graduates in the past years have earned at least a Bachelor's Degree. Our pupil/teacher ratio is 20-1; at present, we spend roughly $1,000 per student per year; and we offer an unusually broad and deep curriculum. Our students excel in academics, the arts, and at times even in athletics. Adults and students can be vocal, demanding, and exasperating; but they can also be supportive and helpful in improving educational experiences. And, the adult population within the community represents a vast educational reservoir which we are steadily developing and exploiting for the benefit of our students. I am a firm believer in the philosophy that the school should be extended into the community and that the community should, as much as possible, be brought into the school. And, I might add that this philosophy is necessary for

the maximum development of a meaningful mini-course curriculum. The visitor to Los Alamos may note that many times there appears to be as much activity on campus in the evening as during the traditional school hours of 8:00 a.m. to 3:30 p.m.

With this background on the nature of the community and school patrons in Los Alamos in mind, one will recognize that the parents will not permit second rate or mediocre educational experiences for their children.

Critics of mini-courses have said that such a program is simply a means of watering down the curriculum, of lowering standards, and of catering to the whims of irresponsible and immature students. I will give you my answer to that criticism. I am sure that vigilance must be exercised by the administrator to prevent "Mickey Mouse" offerings. But, when meaningful educational goals are clearly established and adhered to in the development of mini-courses, the resultant increase both in student and teacher enthusiasm can lead to increased cognitive as well as important affective student gains.

Starting some six years ago at LAHS the movement to a mini-course curriculum has been gradual and steady. The first mini-courses were 9-week units in social studies. These units were specialized, in-depth studies in areas of specific teacher competencies and student interests for which 1/4 credit was awarded. In the spring of that same year we conducted a two-day program of seminars entitled "Earth Days." Students, teachers and adults from the community and region were the instructors in more than eighty seminars of varying lengths with such titles as Air Pollution, Water Pollution, Mountain Climbing, Environmental Law, Forestry, Park Service, Drugs and Drug Abuse, The Population Bomb, Alternative Life Styles, Fossil Fuels and the Impending Energy Crisis, etc. Classes were dismissed for those days and students chose the seminars in which they would participate. We simply "chucked" the standard curriculum and schedule for these days and substituted a concentrated program of mini-courses, outside speakers, students, teachers, special projects and field trips--all geared to student interest. This program was highly successful, serving as a "tension breaker" for students and teachers late in the school year when nerves tend to be jagged and small issues can "bubble up" and

become critical. We have continued with such a program each year since. Our community likes to be involved--and what community does not? In general, recource people are remarkably supportive and willing to take part by donating their time.

Both the 9-week units in social studies and the spring activity days were successful when judged by the criteria of teacher and student enthusiasm.

Since that early start we have built much of our English curriculum around the mini-course concept of 9-week units. And each year we have successfully held spring activity days, building around such central themes as "Mock Political Convention" (related to national political conventions), "Give A Damn Days" (give a damn for the environment, give a damn for your fellowman and give a damn for yourself), and "Future Shock" days.

We are ready now to involve several staff members in summer curriculum work to develop mini-course offerings in physical education, industrial arts, business education, and mathematics. Summer curriculum work has become standard practice the past few years in the Los Alamos Schools with 40 to 50% of the staff engaged in extra-contract curriculum development and/or in teaching summer school classes. In addition we usually have a few students employed to work with each of these committees. No one assumes that the student is expert in the field of curriculum development. His important role is to present the students' viewpoint.

A number of teachers have been caught up in the enthusiasm which can be generated by mini-courses and have planned cross-discipline activities with strong, positive results. We have had teachers in English and industrial arts plan together with the resultant offering of certain research based projects in industrial arts coupled with an English mini-course option in "Writing the Research Paper." Usually, the same students were enrolled in both courses at the same time. In industrial arts and social studies a mini-course labeled "Man and Technology" has been team taught. When I visited one of these sessions recently, the students were involved in simulated negotiations leading to the building of a labor contract. One group of students represented labor and the other management. Adults from a labor union

and the Los Alamos Scientific Laboratory were present as resource persons. The students had done research, and they carried on the negotiations with as much enthusiasm and interest as one is likely to find in the real situation. We have developed an innovative, unique, Engineering Technology Program at LAHS which is team taught and which makes extensive use of the scientific and technical personnel in the community. Also, our Humanities Program revolves around quarter units of team-taught experiences entitled "Philosophy and Morality", "Art and Music", "Technology and Society", and "Nationality and Language."

To illustrate that our movement to mini-courses has in no way caused the academic level of our students' accomplishments to diminish, I offer the following proof:

On the American College Testing Program our students score significantly above the state and national averages. Scores on this test and onother standardized tests appear to be slightly on the increase for LAHS students. The significance of the performance of our students on the ACT test becomes more apparent when one realizes that for the past three or four years about 80% of our seniors have been administered this test.

There are other quality indicators to which I can allude to illustrate that the achievement level of LAHS students has not been lessened by the introduction of mini-courses. We have had significant numbers of National Merit Finalists and Commended Students, Presidential Scholars, increasing numbers of students admitted to Advanced Placement and Honors Programs in traditionally difficult institutions, large numbers of graduates gaining entry to the high professions, many winners in the International Science Fairs, and numerous high placements in the National Foreign Language examinations. Our graduates in each of the past three years have received a total of more than $100,000 in potential value of scholarships at graduation time; have gained recognition in the Outstanding Teenagers of America Program; have won several all-expense paid trips to foreign countries such as Japan, France, Germany and Sweden in the past four years; have received national recognition in placements on such committees as delegate to the International Conference on Youth and the

Environment, to the National Youth Science Camp and others; have won Congressional Medals of Achievement and honors in the U.S. Senate Youth Program and Freedoms Foundation Award; have won recognition in State and national speaking, creative writing, photography, and movie-making enterprises; have won recognition in national math tests; have received national recognition in athletics, notably track and swimming; and there have been many more. These awards seem to increase in scope and importance each year. As indicated, I use these examples only to illustrate that the quality of accomplishment of our students has not declined with the emphasis placed on mini-courses.

We also have some measures of how well we are serving our students in the affective realm of attitudes. These indicators include instruments developed by the Associated Public School Systems which measure the student's academic self-concept; his attitudes toward the school, the teaching process, and his peer relationships; and, more recently, a study done in cooperation with Dr. Al Wight of the Interstate Educational Resource Service Center While results on these affective measurements indicate some areas where we have work to do, they also indicate that, in general, our students feel pretty good about both themselves and their school; and that their attitudes toward their fellow students and others are quite positive.

A listing of some of the mini-courses developed at LAHS follows:

Social Studies: Exploring New Mexico; Income Taxes; Minority Groups, Urban America; Watergate; Man and Machines (team taught with industrial arts); Then and Now - Medicine, Miracles and Money; Geology and Archaeology of the Southwest; Comparative Religions; Environmental Awareness and Activism; Behavioral Science; Mental Health; North American Indian History; American Politics; Sociology; Exploring New Mexico; From Beethoven to Bacharach; Depression and New Deal; Soviet Union; Modern China; Beaver Pelts, Rosary Beads and Sharp's Carbines; and Hot Wheels and Cold Cash

English: Sophomore Seminar (a program for highly motivated students based on an independent study structure and which meets only one day each week); Psychology - Communications (which meets once each week with a reading specialist who has

special training, interests and competencies in non-verbal communication and transactional analysis); Southwest Literature; Western Literature; American Indian Legends; Drug Literature; Comic Art; Black Literature; Creative Writing; Mystery and Detective Stories; Semantics; Theater Experiences; Playwriting; Bible Literature; Devils in Literature; Poetry I; Poetry II; Biography and Autobiography; Business English; War in Literature; Composition for College; Vocabulary; Grammar II; Man and Nature; Shakespeare; Comedy; Russian Literature; Sports Literature; Contemporary Literature; Utopian Literature; Mythology; Spelling; Effective Writing; Myth, Legend, and Fable; Debate; Advanced Speech Communication; Acting; and many more

Physical Education: Weight Machine Training; Individualized Conditioning Programs; Ice Skating; Golf; Tennis; Swimming; and Gymnastics

Industrial Arts: We are considering a shift to a mini-course curriculum. The team has planned extensively and will engage in curriculum work this summer to make the initial changes.

Art and Crafts: In addition to some of the more standard or traditional offerings we will include next year Basic Drawing, Introduction to Painting, Acrylic Painting, Portrait Drawing, Life Drawing, Creative Jewelry, Pottery, Sculpture, and Commercial Art and Printing.

Home Economics: We have enjoyed success with such mini-course offerings as Chef's Club, Child Care, Personal and Social Development, Foreign Fare, Bachelorhood Survival, and Needlework and Crafts.

Business Education: Law and the Minor

Miscellaneous and Spontaneous: Students Who Hate Math organized by a counselor, Community Service Projects, and Science Investigations

This presentation would not be complete unless I indicated to you both advantages and disadvantages of development of the mini-course curriculum based on our experiences at Los Alamos High School. Some of the disadvantages follow.

1. Teachers have students for less than a semester or a year; therefore, they may not get to know them as well.

2. Teachers may have to work harder since they have more preparations. (Yet individualization means harder work and we must individualize to survive.)

3. Some teachers may be reluctant to change the way they have been teaching for years. (Yet those who can make the change usually praise the mini-course idea after involvement in it.)

4. Those teachers who are not popular or competent may find themselves without enough student enrollment to continue full-time employement when students are allowed a wide range of choice.

5. This program may necessitate a new enrollment each quarter rather than by semester or year.

6. It may create a demand for materials and thus cause problems where supply budgets are limited.

7. Some pressure may develop for "Mickey-Mourse" offerings. (Handle this problem through a curriculum committee.)

8. There is no guarantee that instruction will be better in a mini-course structure. It can, however, be more stimulating for the student and it generally reduces the student-teacher conflict problem.

9. Cognitive skills as measured by traditional tests may not improve. (But how can one measure the involvement, the relationships, the beginning of awareness, and the improvements in the affective realm?)

10. Without proper planning mini-courses can be a fiasco.

I listed those considerations as disadvantages.

The advantages appear to far outweigh the negative aspects. The advantages as we see them follow.

1. This curriculum is one innovation which does not require re-training of the teaching staff.

2. It can be done in almost any school and probably does not require additional

space and equipment.

3. Students can be involved in selecting, planning, and even teaching. They become committed and enthusiastic. Apathy and negative activism decrease.

4. A broader selection of courses which run for less than a semester means that teachers can better accommodate individual differences and varied interests.

5. Students have more freedom to select topics that coincide with their interests and needs.

6. Teachers can better specialize in their own areas of expertise.

7. The school has more flexibility, is therefore better able to adjust to the needs of all types of students, and as a consequence has fewer problems of all types.

8. There is more opportunity to develop contemporary offerings which add comprehensiveness, depth, and relevancy to the curriculum.

9. Interest in a particular subject area can be revitalized. (English at LAHS now has 1400 student selections from a student body of 1200.)

10. The program reduces teacher-student conflicts.

11. It may help "turn on" the apathetic and/or the "turned off" student.

12. It may offer a better means for taking advantage of new materials.

13. If the 9-week format is used, very little change of a major nature is necessary in a school's schedule.

14. Students and staff participate in determining what courses are to be offered; thus both groups are better satisfied.

15. It allows more student and parental flexibility in selection of the teacher; hence complaints decrease.

16. The mini-course curriculum causes the school to re-examine its educational goals and in so doing may cause adjustments in offerings and required courses.

17. It affords an opportunity to un-grade the curriculum.

18. Much learning takes place and there is an experience of joy among the participants. Cognitive skills can develop just as well and affective attitudes should be greatly enhanced.

19. All some students need is an awakening interest and an introduction to skills to be "turned on" to a life-time interest.

20. What starts out as a 9-week unit in "Poetry I" or "Creative Writing I" can turn into Poetry II or Creative Writing II as a result of student and teacher enthusiasm.

21. Courses can be as varied as the demand and expertise allow.

22. Mini-courses are tailor made for students and staff with brief periods of open time on their schedules.

23. There is a possibility of more short-time commitments for teachers who have heavy seasonal demands.

In conclusion, if you are not afraid to allow students to become involved in this exciting yet serious business of education; if you are not afraid to cause teachers to reject the bugaboo of dead tradition; if you are not afraid to reject the rigid desk and chair arrangements, the "dry as dust" curriculum, and the silent classroom penetrated only by the riffling of papers and the teacher's monotonous drone; if you are not afraid to see parents working in the schools; if you are not afraid to see students helping students, students and teachers planning courses together, an active curriculum committee being composed of students, teachers, parents, and administrators; if you are not afraid to expose young people to a militant or revolutionary guest speaker (taking care also to expose them to the remainder of the spectrum of political thought and resting secure in the belief that they will make the right decision if given the full opportunity to do so); if you are not afraid to let an enthusiastic and dedicated teacher train an environmental team which will want to present demonstrations to the student body, to other schools in the system, and perhaps to other schools in the state or region (Who knows? They may even develop a county-wide recycling program as was done by high school students in Los Alamos County); if you are not afraid to offer students more freedom of choice in their own destinies--the freedom to make mistakes as well as proper decisions; if you are not afraid to get negative youth involved--those who now use the school only as a place to come in out of the cold and to hassle busy teachers and administrators; if you are not afraid to see teachers working harder and complaining less; and if you like to see students and school patrons

who are generally happy with their school--the mini-course curriculum is, most definitely, for you.